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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/567,093	02/03/2006	Mitsuru Naito	OGW-0416	4635

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EXAMINER

FISCHER, JUSTIN R

ART UNIT	PAPER NUMBER
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1791

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/567,093	Applicant(s) NAITO, MITSURU	
	Examiner Justin R. Fischer	Art Unit 1791	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 01 April 2009.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-9 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-9 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-5 and 7-9 are rejected under 35 U.S.C. 103(a) as being unpatentable over French (US 3,913,654) and further in view of Hashimoto (JP 6-270617). French teaches a tire/wheel assembly, wherein a retention groove for lubricant is provided on an inner peripheral surface of said tire (Figures 1-7). French specifically teaches the inclusion of such lubricant-filled retention grooves in order to provide heat generation that results from contact between opposing surfaces within the tire cavity. While the tire of French fails to include a runflat support member, one of ordinary skill in the art at the time of the invention would have found it obvious to include such a member since it provides improved runflat durability (consistent with the desire of French) and lubricant-filled assemblies commonly include such members (tires commonly fitted with runflat support members develop heat buildup when runflat support member contacts inner tire surface during an underinflated condition- lubricant reduces above noted contact). Hashimoto provides one example of a similar tire construction in which a lubricant is positioned between the inner tire surface and a runflat support member (which itself is secured to the rim). As such, one of ordinary skill in the art at the time of the invention would have found it obvious to include a runflat support member in the tire of French.

Regarding claims 2 and 3, Figures 1-7 of French suggest that the reference is directed to a plurality of embodiments in which the retention grooves have a wide variety of dimensions (depth and width). It is further noted that the claims require absolute dimensions and it is well recognized that tire dimensions are directly related to the type of tire (and thus the tire size- tire components are generally larger in larger tires). Thus, one of ordinary skill in the art at the time of the invention would have found it obvious to form the retention grooves of French in accordance to the claimed invention absent any conclusive showing of unexpected results.

With respect to claims 4 and 5, conventional tire assemblies include at least one carcass ply. In the instance where two carcass plies are provided, an innermost carcass ply can be viewed as a fiber reinforced layer that is sandwiched between a bottom of the retention groove and an outermost carcass ("a carcass ply" as defined by the claimed invention). Furthermore, such carcass plies are formed with either a biased or radial construction (satisfies claimed range between 45 and 90 degrees with respect to the circumferential direction of the tire).

As to claim 7, the retention grooves of French can be discontinuous in the circumferential direction of the tire (e.g. Figure 7 and Column 3).

Regarding claims 8 and 9, ribs 7 are seen to constitute the claimed "salient portions" that extend in the circumferential direction of the tire (Figure 3 and Column 2, Lines 55+).

3. Claims 1-5 and 7-9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hashimoto and further in view of French. Hashimoto substantially teaches the

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claimed tire/wheel assembly, including a runflat support member 11 and a lubricant layer 10. While the lubricant layer appears to simply be arranged on the inner surface of the tire, as opposed to within a retention groove, it is well known to arrange a lubricant layer within retention grooves, as shown for example by French. In this instance, there appears to be only two general techniques of including such a lubricant layer: one in which the lubricant is positioned on the inner surface without retention grooves and one in which the lubricant is positioned on the inner surface without retention grooves. In essence, French recognizes an alternative manner in which lubricant layers are commonly provided on the inner surface of tire constructions and applicant has not provided a conclusive showing of unexpected results to establish a criticality for the claimed arrangement. Thus, one of ordinary skill in the art at the time of the invention would have found it obvious to use retention grooves in the wheel/tire assembly of Hashimoto.

Regarding claims 2 and 3, Figures 1-7 of French suggest that the reference is directed to a plurality of embodiments in which the retention grooves have a wide variety of dimensions (depth and width). It is further noted that the claims require absolute dimensions and it is well recognized that tire dimensions are directly related to the type of tire (and thus the tire size- tire components are generally larger in larger tires). Thus, one of ordinary skill in the art at the time of the invention would have found it obvious to form the retention grooves of French in accordance to the claimed invention absent any conclusive showing of unexpected results.

With respect to claims 4 and 5, conventional tire assemblies include at least one carcass ply. In the instance where two carcass plies are provided, an innermost carcass ply can be viewed as a fiber reinforced layer that is sandwiched between a bottom of the retention groove and an outermost carcass ("a carcass ply" as defined by the claimed invention). Furthermore, such carcass plies are formed with either a biased or radial construction (satisfies claimed range between 45 and 90 degrees with respect to the circumferential direction of the tire).

As to claim 7, the retention grooves of French can be discontinuous in the circumferential direction of the tire (e.g. Figure 7 and Column 3).

Regarding claims 8 and 9, ribs 7 are seen to constitute the claimed "salient portions" that extend in the circumferential direction of the tire (Figure 3 and Column 2, Lines 55+).

4. Claims 1-9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kobayashi (US 4,848,431) and further in view of Hashimoto and French. Kobayashi teaches a wheel/tire assembly including a rubber layer 5 arranged radially inward of a carcass layer 4u. Kobayashi, however, fails to include a runflat support member. It is extremely well known to include a runflat support member in modern day tire constructions in order to provide improved runflat durability in an underinflated condition, as shown for example by Hashimoto. Hashimoto further suggests the inclusion of a lubricant layer in order to eliminate heat buildup commonly experienced in an underinflated condition (when runflat support member contacts inner tire surface). While Hashimoto fails to arrange such a lubricant layer within a retention groove,

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French recognizes the known use of such retention grooves with lubricant layers. In essence, French recognizes an alternative manner in which lubricant layers are commonly provided on the inner surface of tire constructions and applicant has not provided a conclusive showing of unexpected results to establish a criticality for the claimed arrangement. Thus, one of ordinary skill in the art at the time of the invention would have found it obvious to use retention grooves in the wheel/tire assembly of Kobayashi in view of Hashimoto.

Regarding claims 2 and 3, Figures 1-7 of French suggest that the reference is directed to a plurality of embodiments in which the retention grooves have a wide variety of dimensions (depth and width). It is further noted that the claims require absolute dimensions and it is well recognized that tire dimensions are directly related to the type of tire (and thus the tire size- tire components are generally larger in larger tires). Thus, one of ordinary skill in the art at the time of the invention would have found it obvious to form the retention grooves of French in accordance to the claimed invention absent any conclusive showing of unexpected results.

With respect to claims 4 and 5, conventional tire assemblies include at least one carcass ply. In the instance where two carcass plies are provided, an innermost carcass ply can be viewed as a fiber reinforced layer that is sandwiched between a bottom of the retention groove and an outermost carcass ("a carcass ply" as defined by the claimed invention). Furthermore, such carcass plies are formed with either a biased or radial construction (satisfies claimed range between 45 and 90 degrees with respect to the circumferential direction of the tire).

With respect to claim 6, as noted above, rubber layer 5 is positioned between a carcass layer 4u and a bottom of a retention groove (in view of French).

As to claim 7, the retention grooves of French can be discontinuous in the circumferential direction of the tire (e.g. Figure 7 and Column 3).

Regarding claims 8 and 9, ribs 7 are seen to constitute the claimed “salient portions” that extend in the circumferential direction of the tire (Figure 3 and Column 2, Lines 55+).

Response to Arguments

5. Applicant's arguments with respect to claims 1-9 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

6. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

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the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to **Justin R. Fischer** whose telephone number is **(571) 272-1215**. The examiner can normally be reached on M-F (7:30-4:00).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richard Crispino can be reached on (571) 272-1226. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Justin Fischer
/Justin R Fischer/
Primary Examiner, Art Unit 1791
June 16, 2009